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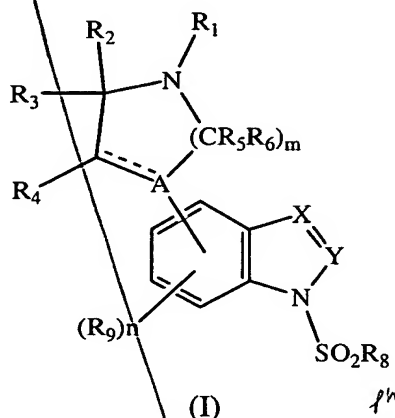
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This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A compound of formula I



A2
wherein

A is ~~C, CR₁₀ or~~ N;

X is CR₁₁ or N;

Y is CR₇ or N with the proviso that when X is N, then Y must be CR₇;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;

R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;

m is an integer of ~~1, 2 or~~ 3;

n is 0 or an integer of 1, 2 or 3; and

--- represents a single bond or a double bond; or a pharmaceutically acceptable salt thereof.

2. (Cancelled)

3. (Original) The compound according to claim 1 wherein R₈ is an optionally substituted phenyl group.

B1
Cont
4. (Original) The compound according to claim 1 wherein R₂, R₃, R₄, R₅ and R₆ are H.

5. (Currently Amended) The compound according to claim 2 1 wherein R₁ is H or a C₁-C₆alkyl or cycloheteroalkyl group each optionally substituted.

A2
6. (Original) The compound according to claim 5 selected from the group consisting of:

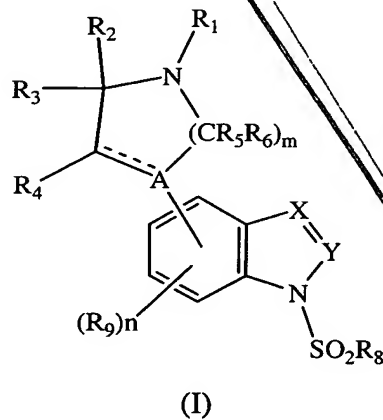
1-(phenylsulfonyl)-4-piperazin-1-yl-1H-indole;
 1-[(2-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 1-[(3,4-dimethoxyphenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 1-[(4-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 1-[(5-bromothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 1-[(4,5-dichlorothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
 methyl 4-[(4-piperazin-1-yl-1H-indol-1-yl)sulfonyl]phenyl ether;
 4-piperazin-1-yl-1-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1H-indole;
 4-(4-benzylpiperazin-1-yl)-1-(phenylsulfonyl)-1H-indole;
 4-(4-benzylpiperazin-1-yl)-1-[(2-bromophenyl)sulfonyl]-1H-indole;
 4-(4-benzylpiperazin-1-yl)-1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1H-indole;
 4-(4-benzylpiperazin-1-yl)-1-[(3,4-dimethoxyphenyl)sulfonyl]-1H-indole;
 4-[4-(3-methoxybenzyl)piperazin-1-yl]-1-(phenylsulfonyl)-1H-indole;
 1-(phenylsulfonyl)-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
 1-(phenylsulfonyl)-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
 1-[(2-bromophenyl)sulfonyl]-4-[4-(3-methoxybenzyl)piperazin-1-yl]-1H-indole;
 1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
 1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
 1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;
 1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;

B1
cont

1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(5-bromothiophen-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(5-bromothiophen-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;
1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;
1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-[4-(3-phenylpropyl)-piperazin-1-yl]-1H-indazole; and
the pharmaceutically acceptable salts thereof.

A2

7. (Currently Amended) A method for the treatment of a disorder of the central nervous system related to or affected by the 5-HT₆ receptor wherein said disorder is selected from the group consisting essentially of: schizophrenia; depression; and a cognitive disorder in a patient in need thereof which comprises administering to said patient a therapeutically effective amount of a compound of formula I.



wherein

A is C, CR₁₀ or N;

X is CR₁₁ or N;

Y is CR₇ or N with the proviso that when X is N, then Y must be CR₇;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

B1
cont

A²

~~R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;~~
~~R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;~~
~~R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;~~
~~R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;~~
~~R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;~~
~~m is an integer of 1, 2 or 3;~~
~~n is 0 or an integer of 1, 2 or 3; and~~
~~--- represents a single bond or a double bond; or~~
~~a pharmaceutically acceptable salt thereof.~~

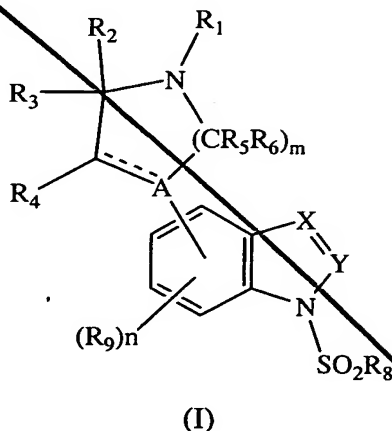
8. (Cancelled)

9. (Original) The method according to claim 7 wherein said disorder is schizophrenia or depression.

[Signature]
10. (Currently Amended) The method according to claim 7 wherein said cognitive disorder is Alzheimer's disease or Parkinson's disease.

11. (Cancelled)

12. (Currently Amended) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I.



wherein

B1
cont
A is ~~C, CR₁₀ or N~~;

X is ~~CR₁₁ or N~~;

Y is ~~CR₇ or N~~ with the proviso that when X is N, then Y must be CR₇;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;

A2
R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;

m is an integer of ~~1, 2 or 3~~;

n is O or an integer of 1, 2 or 3; and

~~---~~ represents a single bond or a double bond; or
a pharmaceutically acceptable salt thereof.

13. (Cancelled)

B1
cont
14. (Original) The composition according to claim 12 wherein R₈ is an optionally substituted phenyl group.

15. (Original) The composition according to claim 12 wherein R₂, R₃, R₄, R₅ and R₆ are H.

16. (Currently Amended) The composition according to claim ~~13~~ 12 wherein R₁ is H or a C₁-C₆alkyl or cycloheteroalkyl group each optionally substituted.

17. (Original) The composition according to claim 16 having a compound of formula I selected from the group consisting of:

1-(phenylsulfonyl)-4-piperazin-1-yl-1H-indole;

1-[(2-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;

1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;

B1
cont

1-[(3,4-dimethoxyphenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-chloro-3-methyl-1-benzothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4-bromophenyl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(5-bromothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
1-[(4,5-dichlorothien-2-yl)sulfonyl]-4-piperazin-1-yl-1H-indole;
methyl 4-[(4-piperazin-1-yl-1H-indol-1-yl)sulfonyl]phenyl ether;
4-piperazin-1-yl-1-[[4-(trifluoromethoxy)phenyl]sulfonyl]-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-(phenylsulfonyl)-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(2-bromophenyl)sulfonyl]-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(6-chloroimidazo[2,1-b][1,3]thiazol-5-yl)sulfonyl]-1H-indole;
4-(4-benzylpiperazin-1-yl)-1-[(3,4-dimethoxyphenyl)sulfonyl]-1H-indole;
A2
4-[4-(3-methoxybenzyl)piperazin-1-yl]-1-(phenylsulfonyl)-1H-indole;
1-(phenylsulfonyl)-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
1-(phenylsulfonyl)-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(3-methoxybenzyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-4-ylmethyl)piperazin-1-yl]-1H-indole;
1-[(2-bromophenyl)sulfonyl]-4-[4-(pyridin-3-ylmethyl)piperazin-1-yl]-1H-indole;
1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;
1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;
1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(5-bromothien-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(5-bromothien-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;
1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;
1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-[4-(3-phenylpropyl)-piperazin-1-yl]-1H-indazole; and
the pharmaceutically acceptable salts thereof.

I.

 A^2

X is CR₁₁ or N;

R₁ is C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

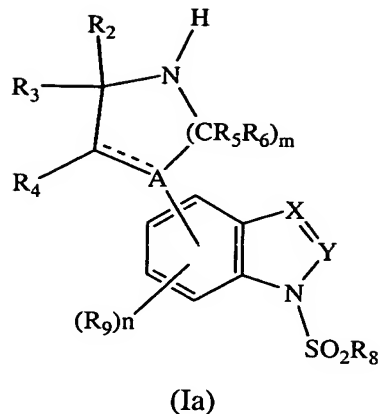
R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or alkoxy group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;

m is an integer of ~~1, 2 or 3~~;

---- represents a single bond or a double bond

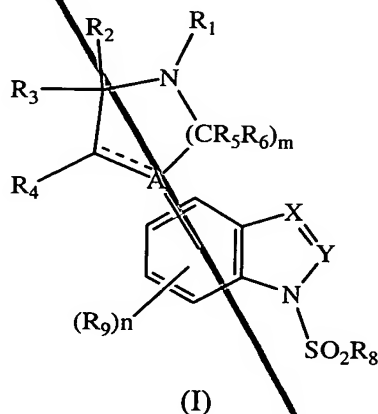
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A²

wherein A, X, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, m and n are as defined hereinabove for formula I with a compound R₁-Hal wherein R₁ is as defined hereinabove for formula I and Hal is Cl, Br or I.

19. (New) A compound of formula I



wherein

A is N;

X is CR₁₁ or N;

Y is CR₇ or N with the provisos that when X is N, then Y must be CR₇ and at least one of X and Y must be N;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;

B1
cont

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;
R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;
R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;
m is an integer of 2;
n is 0 or an integer of 1, 2 or 3; and
--- represents a single bond or a double bond; or
a pharmaceutically acceptable salt thereof.

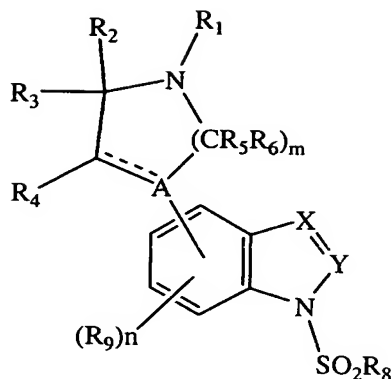
20. (New) The compound according to claim 19 wherein R₈ is an optionally substituted phenyl group.

A2

21. (New) The compound according to claim 19 selected from the group consisting of:

1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;
1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;
1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(5-bromothien-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(5-bromothien-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;
1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;
1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-[4-(3-phenylpropyl)-piperazin-1-yl]-1H-indazole; and
the pharmaceutically acceptable salts thereof.

22. (New) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I.



wherein

A is N;

X is CR₁₁ or N;

Y is CR₇ or N with the provisos that when X is N, then Y must be CR₇ and at least one of X and Y must be N;

R₁ is H, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyloxy or an C₁-C₆alkyl, C₁-C₆alkenyl, C₁-C₆alkynyl or cycloheteroalkyl group each optionally substituted;

R₂, R₃, R₄, R₅ and R₆ are each independently H, halogen, OH or an optionally substituted C₁-C₆alkyl group;

R₇ and R₁₁ are each independently H, halogen or an C₁-C₆alkyl, aryl, heteroaryl or C₁-C₆alkoxy group each optionally substituted;

R₈ is an C₁-C₆alkyl, aryl or heteroaryl group each optionally substituted;

R₉ is H, halogen or an C₁-C₆alkyl, C₁-C₆alkoxy, C₁-C₆alkenyl, aryl or heteroaryl group each optionally substituted;

R₁₀ is H, OH or an optionally substituted C₁-C₆alkoxy group;

m is an integer of 2;

n is 0 or an integer of 1, 2 or 3; and

--- represents a single bond or a double bond; or

a pharmaceutically acceptable salt thereof.

23. (New) The composition according to claim 22 having a compound of formula I selected from the group consisting of:

1-(phenylsulfonyl)-5-piperazin-1-yl-1H-indazole;

1-(phenylsulfonyl)-6-piperazin-1-yl-1H-indazole;

1-[(2-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;

1-[(4-bromophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;

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A2

1-[(4-bromophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(5-bromothien-2-yl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(5-bromothien-2-yl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-5-piperazin-1-yl-1H-indazole;
1-[(4-fluorophenyl)sulfonyl]-6-piperazin-1-yl-1H-indazole;
methyl 4-[(5-piperazin-1-yl-1H-indazol-1-yl)sulfonyl]phenyl ether;
1-phenylsulfonyl-4-(4-propylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-piperazin-1-yl-1H-indazole;
1-phenylsulfonyl-4-(4-phenethylpiperazin-1-yl)-1H-indazole;
1-phenylsulfonyl-4-[4-(3-phenylpropyl)-piperazin-1-yl]-1H-indazole; and
the pharmaceutically acceptable salts thereof.